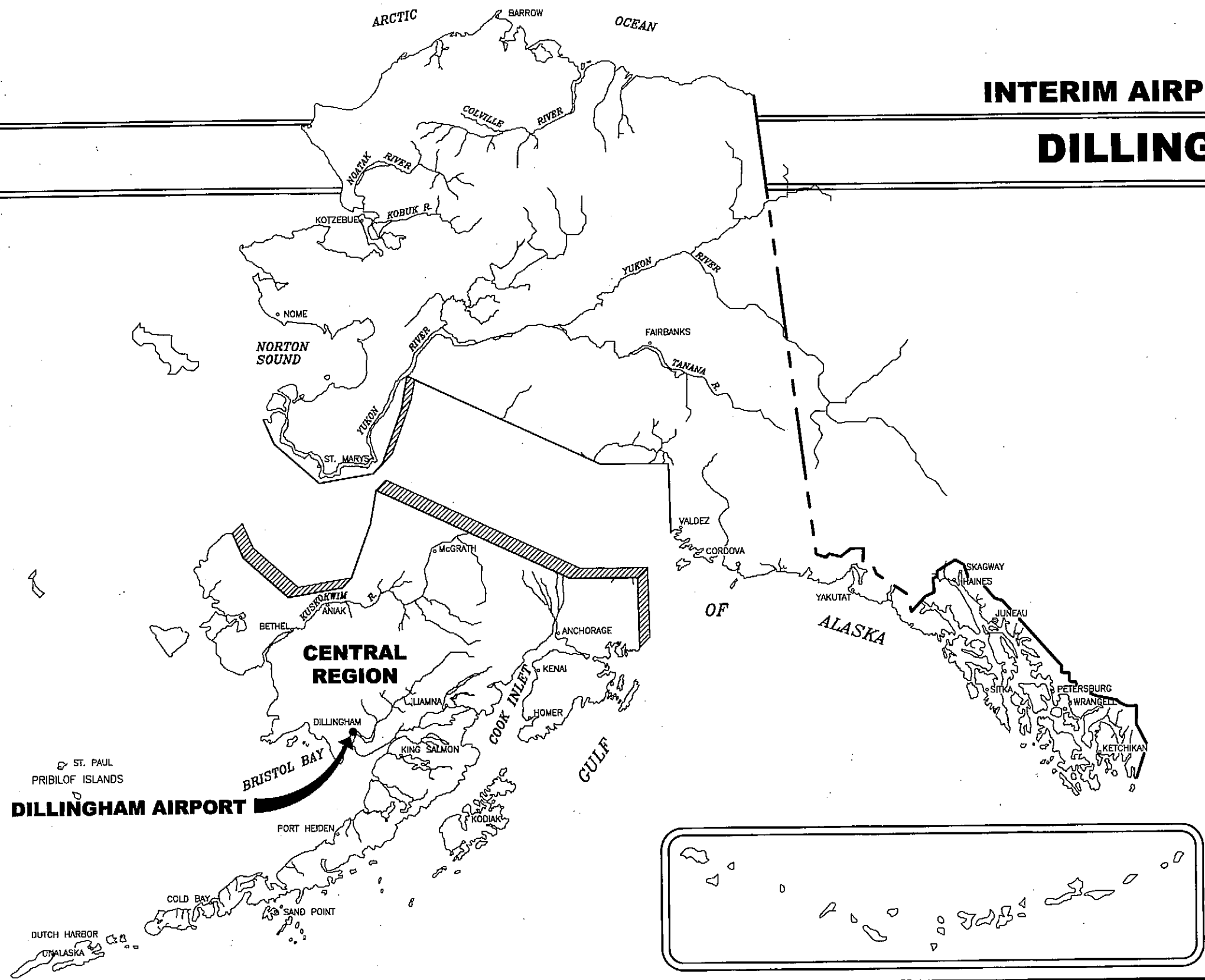
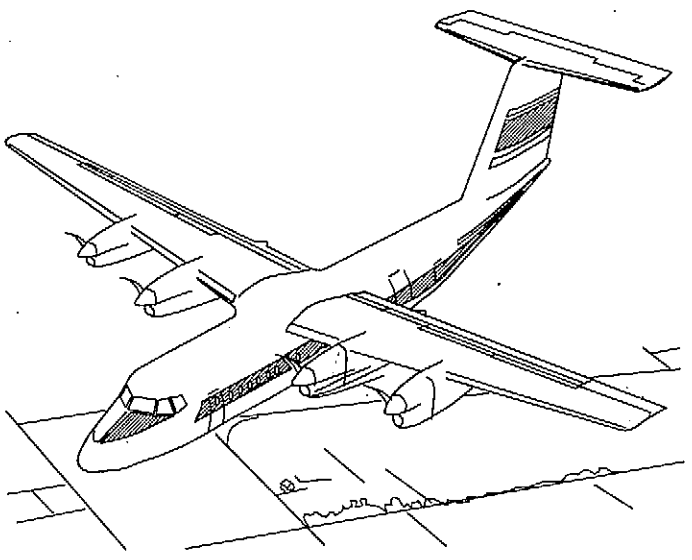


INTERIM AIRPORT LAYOUT PLAN FOR DILLINGHAM AIRPORT

2003

DRAWING INDEX

- 1 - COVER SHEET AND INDEX
- 2 - VICINITY MAP AND DATA TABLES
- 3 - AIRPORT INTERIM LAYOUT PLAN
- 4 - RUNWAY 1 APPROACH SURFACES PLAN AND PROFILE
- 5 - RUNWAY 19 APPROACH SURFACES PLAN AND PROFILE
- 6 - F.A.R. PART 77 SURFACES
- 7 - NARRATIVE REPORT



**SPONSORED BY
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION**

CONCUR *Gordon C. Keith* **DATE** 4/25/03
GORDON C. KEITH **CONSTRUCTION & OPERATIONS DIRECTOR**

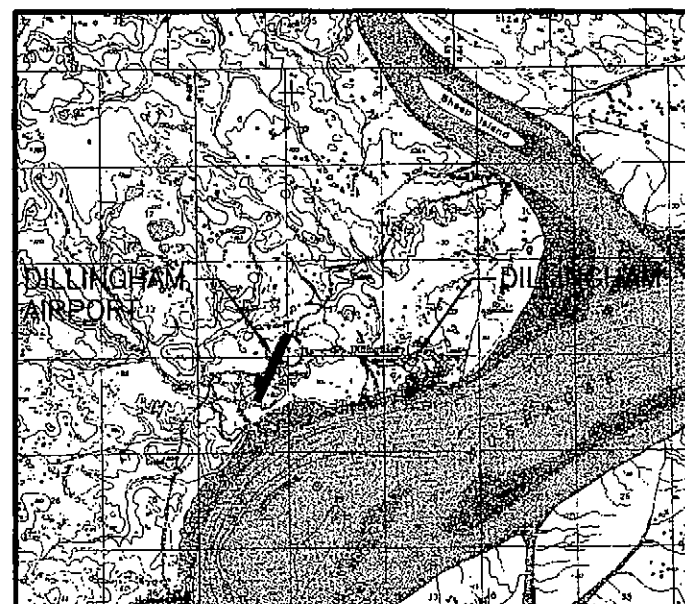
APPROVED *Steven R. Horn* **DATE** 4/25/03
STEVEN R. HORN, P.E. **REGIONAL PRECONSTRUCTION ENGINEER**

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 6/30/03
By: *Andrew* **DATE:** 6/30/03
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-800

F.A.A. AIRSPACE REVIEW NUMBER:
03-ALL-30-NRA

**DILLINGHAM AIRPORT
INTERIM AIRPORT LAYOUT
PLAN**

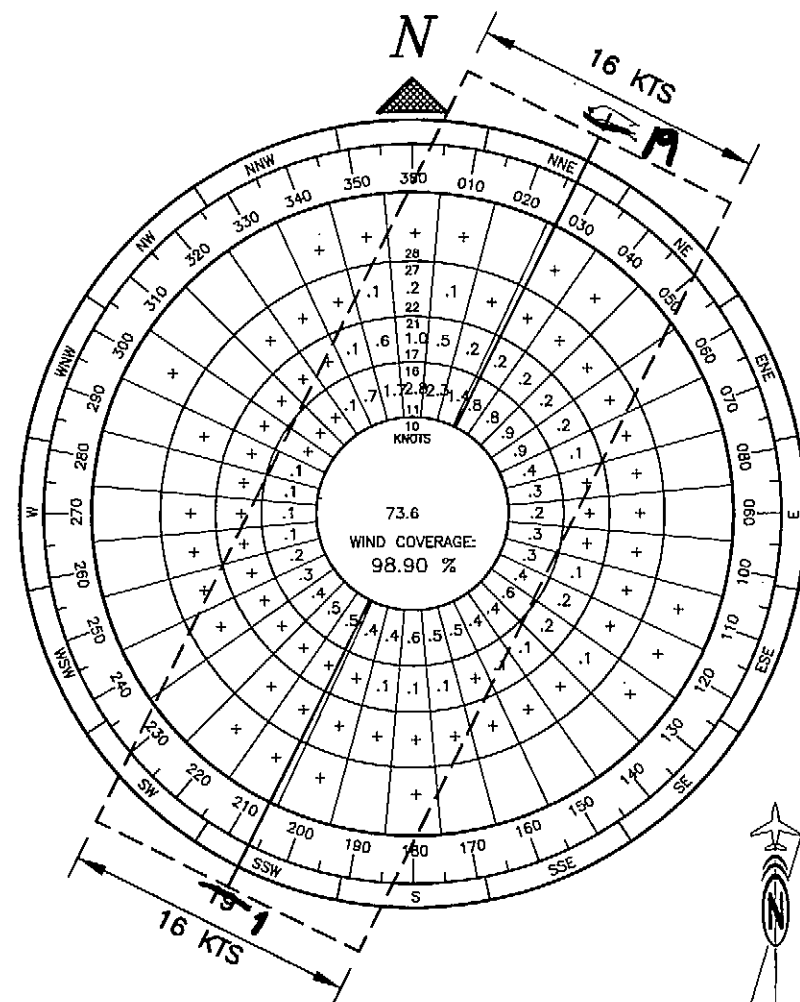
SHEET 1 OF 7



VICINITY MAP

1"=1 MILE
T 13 S, R 55 W, SEC. 17, 18, 19, 20
SEWARD MERIDIAN
USGS DILLINGHAM (A-7), ALASKA

MAGNETIC DECLINATION 16°48'E
JUNE 2002, NOAA



WIND DATA

MAGNETIC DECLINATION 16°48'E
JUNE 2002, NOAA

CONVERSION FACTORS FOR SI UNITS		
TO CONVERT FROM	TO	MULTIPLY BY
STATION	METER (m)	30.48
MILE	KILOMETER (km)	1.609344
MILE	METER (m)	1,609.344
FOOT	METER (m)	0.3048
FOOT	MILLIMETER (mm)	304.8
INCH	MILLIMETER (mm)	25.4
SQUARE FOOT	SQUARE METER (m ²)	0.09290304
SQUARE YARD	SQUARE METER (m ²)	0.8361274
ACRE	SQUARE METER (m ²)	4,046.873
CUBIC FOOT	CUBIC METER (m ³)	0.02831685
CUBIC YARD	CUBIC METER (m ³)	0.7645549
GALLON (US LIQUID)	CUBIC METER (m ³)	0.003785412
M. GAL.	CUBIC METER (m ³)	3.785412
POUND-MASS (LBM)	KILOGRAM (kg)	0.4535924
TON (SHORT)	KILOGRAM (kg)	907.1847
POUND-FORCE (LBF)	NEWTON (n)	4.448222
FOOTCANDLE	LUX (lx)	10.76391
DEGREE FAHRENHEIT	DEGREE CELSIUS (°C)	T°C=(T°F-32)/1.8


[illegible]


LEGEND		
ITEM	EXISTING	FUTURE
PROPERTY LINE		
BUILDING RESTRICTION LINE		
AVIGATION & HAZARD EASEMENT		
AIRPORT REFERENCE POINT (A.R.P.)		
WIND CONE AND SEGMENTED CIRCLE		
CONTOURS		
ROADWAYS		
BUILDINGS		
ROTATING BEACON		
SHORELINE		
ANTENNA		
VASI		
BLUFF		
FENCE		
MALSF		
REIL		
THRESHOLD LIGHTS		
RUNWAY PROTECTION ZONE		
RUNWAY SAFETY AREA		
OBJECT FREE AREA		
OBSTACLE FREE ZONE		
TREES		
RUNWAY GUIDANCE SIGNS		

[illegible]

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT: ALP APPROVAL LETTER DATED 6/30/03
By: Pat O'Neil DATE: 6/30/03
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-800
F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-300NR

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: 
STEPHEN M. RYAN, P.E. _____ DESIGN SECTION CHIEF

APPROVED: 
HARVEY W. DOUTHETT, P.E. _____ PROJECT MANAGER

DATE 4/24/03
DESIGN JLO
DRAWN JLO
CHECKED SRP

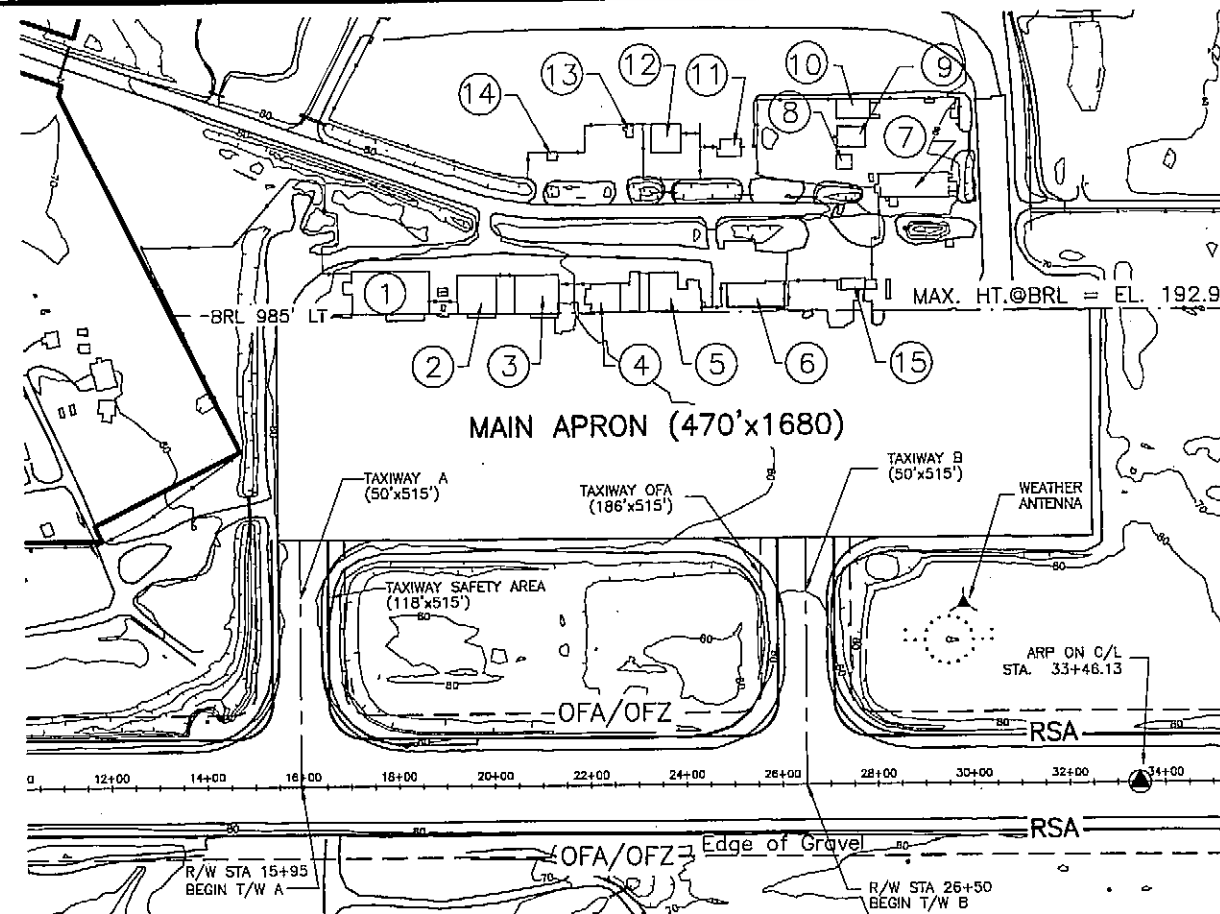
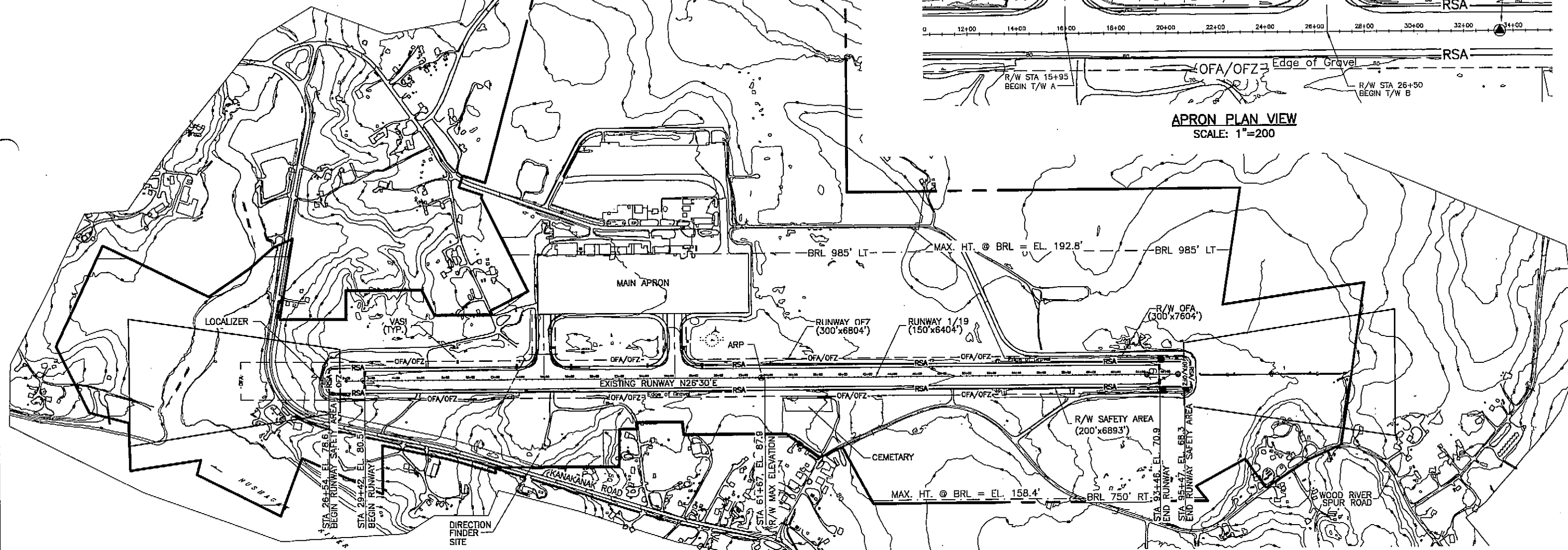
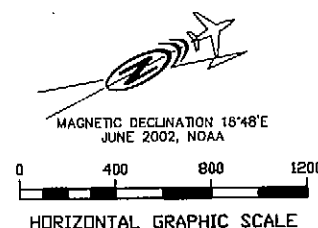
DILLINGHAM AIRPORT

INTERIM AIRPORT LAYOUT PLAN

VICINITY MAP AND DATA TABLES

SHEET
2 OF 7

BUILDING TABLE			
BUILDING NUMBER	DESCRIPTION	ELEV. AT TOP OF STRUCTURE	OBSTRUCTION MARKING
1	YUTE AIR ALASKA, HAEGELAND AVIATION AND LARRY'S FLYING SERVICE	111.9'	NO
2	FRESHWATER ADVENTURES	104.4'	NO
3	ALASKA AIRLINES AND PENAIR	104.2'	NO
4	PENINSULA AIRWAYS, INC.	100.9'	NO
5	STARFLITE, INC.	105.8'	NO
6	GRANT AVIATION, FSS, TWIN DRAGON RESTAURANT, FRONTIER FLYING SERVICE, ARTIC CIRCLE AIR	104.0'	NO
7	ARFF / SRE BUILDING	106.1'	NO
8	CITY OF DILLINGHAM	N/A	NO
9	STATE SHOP	N/A	NO
10	SAND STORAGE	N/A	NO
11	TUCKER AVIATION	N/A	NO
12	US FISH AND WILDLIFE SERVICES	N/A	NO
13	BRISTOL BAY AIR SERVICES, INC.	N/A	NO
14	TOGIK TRANSPORTATION, INC.	N/A	NO
15	ALASKA CARGO SERVICES	91.1'	NO



APRON PLAN VIEW
SCALE: 1"=200

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 6/30/03
By: *[Signature]* DATE: 6/30/03
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-800
F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-304RA

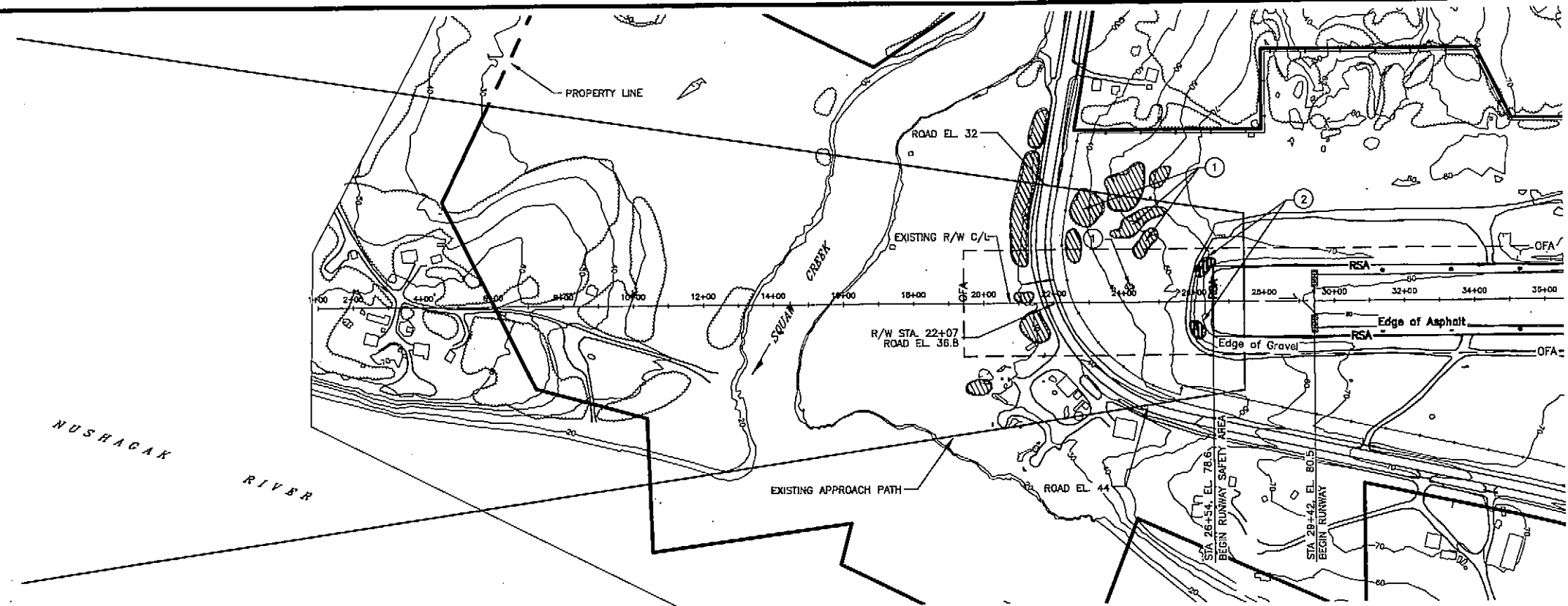
BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION
APPROVED: *[Signature]* DESIGN SECTION CHIEF
APPROVED: *[Signature]* PROJECT MANAGER
HARVEY M. DOUTHETT, P.E.

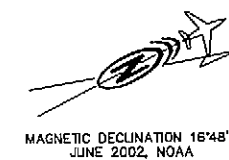
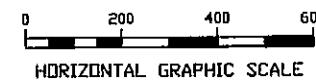
DATE 4/24/03
DESIGN JLO
DRAWN JLO
CHECKED SRP

DILLINGHAM AIRPORT
INTERIM AIRPORT LAYOUT PLAN
AIRPORT LAYOUT

SHEET
3
OF
7



RUNWAY 1 PLAN

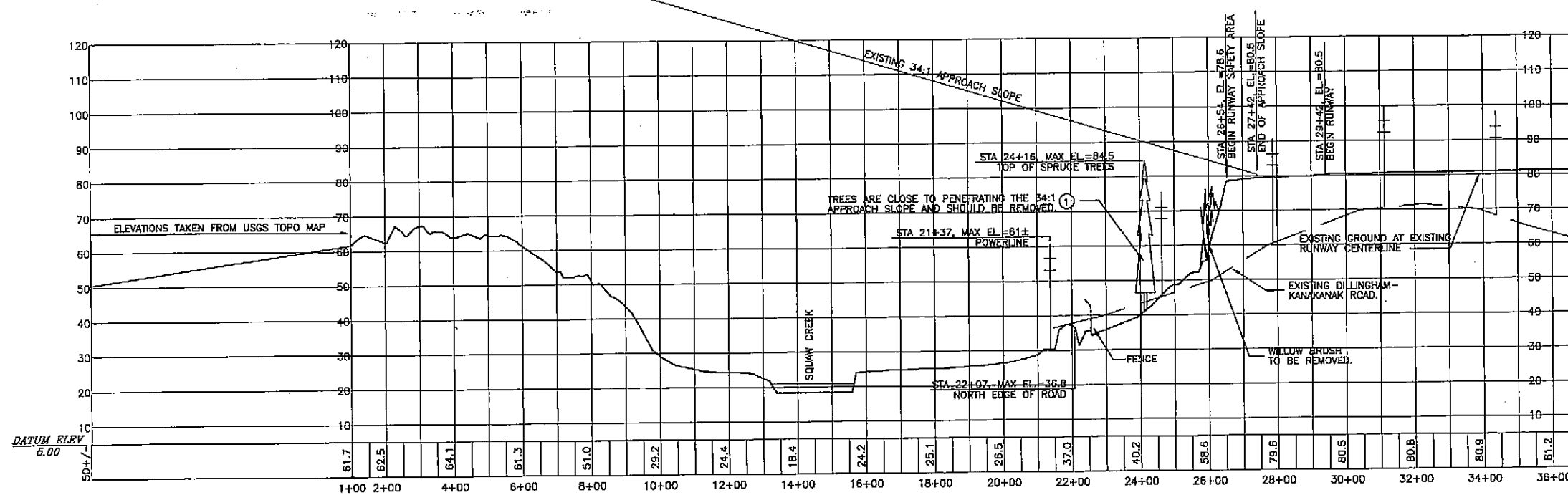


- ① SPRUCE TREE (NON-PENETRATION/REMOVAL)
- ② WILLOW (NON-PENETRATION/REMOVAL)

AIRSPACE OBSTRUCTION TABLE

NO.	DESCRIPTION	AMOUNT OF PENETRATION	PROPOSED DISPOSITION
①	SPRUCE TREES	NONE	REMOVE
②	WILLOW	NONE	REMOVE

NOTE: ALL ELEVATIONS PRIOR TO R/W STATION 1+00 AND AFTER STATION 111+00, WERE TAKEN FROM THE 1954 USGS QUAD MAP FOR DILLINGHAM. POWERLINE LOCATIONS ARE ALL ESTIMATED FROM 1988 ALP.



RUNWAY 1 PROFILE

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 6/30/03
By: *Pat O'Neil* DATE: 6/30/03
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-800
F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-30424

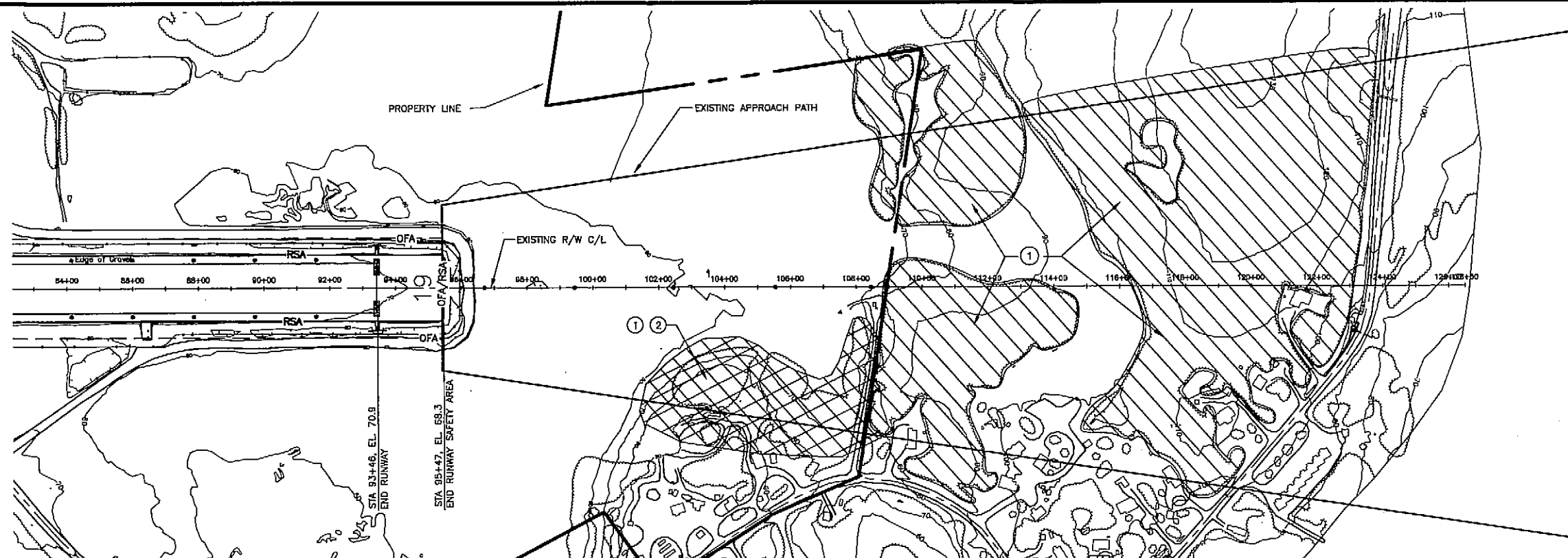
BY	DATE	REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION
APPROVED: *Stephen M. Ryan, P.E.* DESIGN SECTION CHIEF
APPROVED: *Harvey M. Douthitt, P.E.* PROJECT MANAGER

DATE 4/24/03
DESIGN JLO
DRAWN JLO
CHECKED SRP

DILLINGHAM AIRPORT
INTERIM AIRPORT LAYOUT PLAN
RUNWAY 1 PLAN AND PROFILE

SHEET
4
OF
7



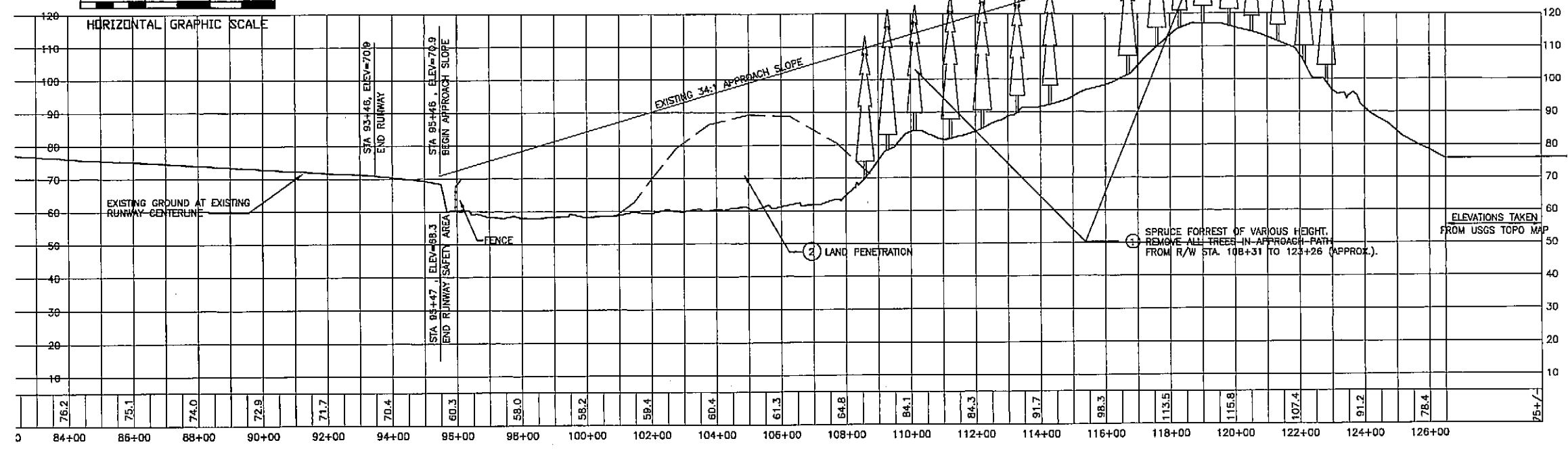
RUNWAY 19 PLAN

- LEGEND:
- ① TREE PENETRATION
 - ② LAND PENETRATION

AIRSPACE OBSTRUCTION TABLE

NO.	DESCRIPTION	AMOUNT OF PENETRATION	PROPOSED DISPOSITION
①	SPRUCE TREES	N/A	REMOVE
②	LAND PENETRATION	15'±/-	NO REMOVAL

MAGNETIC DECLINATION 16°48'E
JUNE 2002, NOAA



RUNWAY 19 PROFILE

FILE: g:\data\
DATE: 07/17/2003

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED 6/30/03

BY: *[Signature]* DATE: 6/30/03

FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-600

F.A.A. AIRSPACE REVIEW NUMBER: 03-AAL-30NRA

BY	DATE	REVISIONS

STATE OF ALASKA
**DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES**
CENTRAL REGION

APPROVED: *[Signature]*
STEPHEN M. RYAN, P.E. DESIGN SECTION CHIEF

APPROVED: *[Signature]*
HARVEY M. DOUTHETT, P.E. PROJECT MANAGER

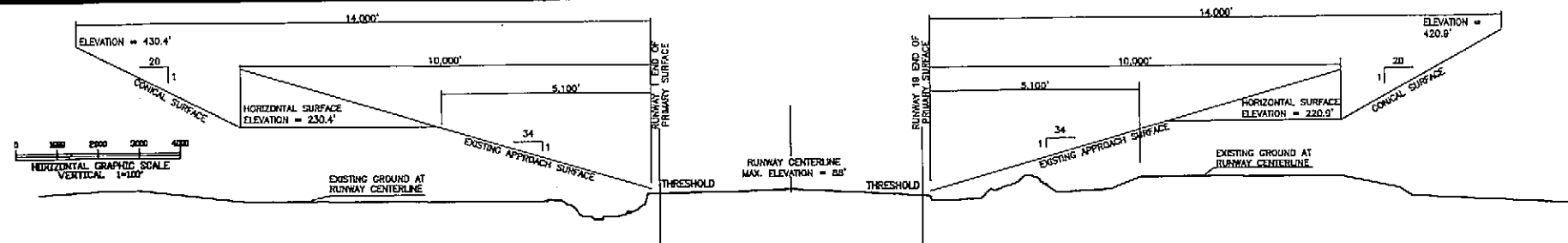
DATE 4/24/03
DESIGN JLO
DRAWN JLO
CHECKED SRP

DILLINGHAM AIRPORT

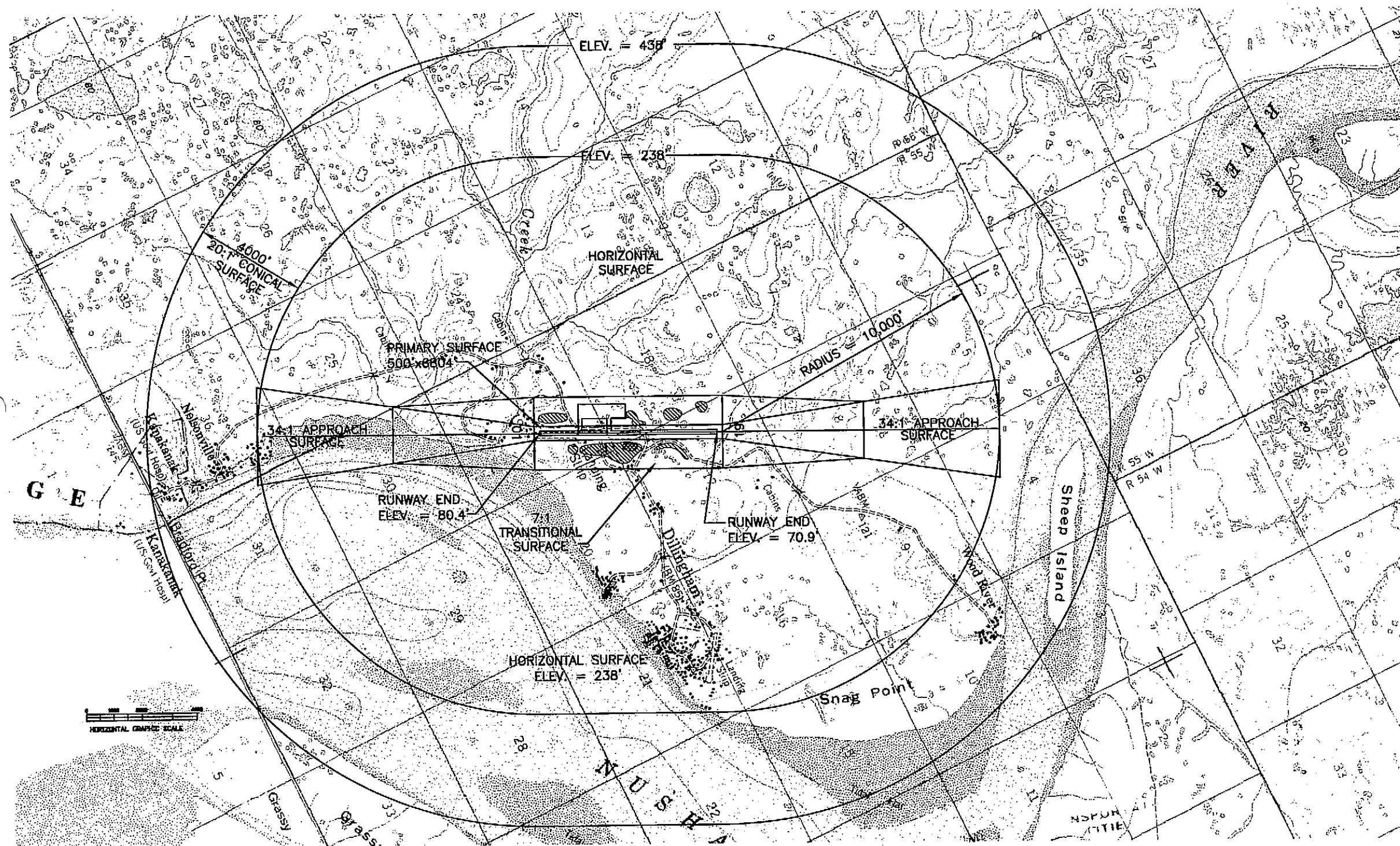
INTERIM AIRPORT LAYOUT PLAN

RUNWAY 19 PLAN AND PROFILE

SHEET
5
OF
7



MAGNETIC DECLINATION 16°48'E
JUNE 2002, NOAA



LEGEND:

- ① TREE PENETRATION
- ② LAND PENETRATION

AIRSPACE OBSTRUCTION TABLE

NO.	DESCRIPTION	AMOUNT OF PENETRATION	PROPOSED DISPOSITION
①	TREE PENETRATION	VARIES	REMOVE
②	LAND PENETRATION	5'±	NO REMOVAL

NOTE: VERTICAL DATUM FOR THIS SHEET IS MAD 83.
REFER TO THE INNER PORTION OF THE APPROACH SURFACE PLAN VIEW
DETAILS FOR CLOSE-IN OBSTRUCTIONS.

ESTABLISHED AIRPORT ELEV.=88.0'
R/W 19 THRESHOLD ELEV.=70.9'
R/W 1 THRESHOLD ELEV.=80.4'

FILE:
q:\data\
DATE:
01/17/2003

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL
SUBJECT TO ALP APPROVAL LETTER DATED **6/30/03**
By: *[Signature]* DATE: **6/30/03**
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-600
F.A.A. AIRSPACE REVIEW NUMBER: **03-AAL-30884**

BY DATE REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: *[Signature]* DESIGN SECTION CHIEF
STEPHEN M. RYAN, P.E.
APPROVED: *[Signature]* PROJECT MANAGER
HARVEY M. DOUTHITT, P.E.

DATE **4/24/03**
DESIGN **JLO**
DRAWN **JLO**
CHECKED **SRP**

DILLINGHAM AIRPORT
INTERIM AIRPORT LAYOUT PLAN
F.A.R. PART 77 SURFACE

SHEET
6
OF
7

PURPOSE

THIS NARRATIVE REPORT IS INCLUDED WITH THE AIRPORT LAYOUT PLAN (ALP) FOR DILLINGHAM, ALASKA, IN ACCORDANCE WITH THE FEDERAL AVIATION ADMINISTRATION (FAA) ADVISORY CIRCULAR 150/5300-13, CHANGE 6, APPENDIX 7 AND THE FAA ALASKAN REGION AIRPORT LAYOUT PLAN CHECKLIST. THIS ALP DOES NOT REFLECT ANY NEW FACILITY DESIGN UPGRADES. FUTURE EXPANSION OF THE DILLINGHAM AIRPORT WILL BE PART OF THE MASTERPLAN, WHICH IS BEING UPDATED AS OF JUNE 2003.

INTRODUCTION

DILLINGHAM IS LOCATED IN SOUTHWEST ALASKA AT THE EXTREME NORTHERN END OF NUSHAGAK BAY IN NORTHERN BRISTOL BAY, AT THE CONFLUENCE OF THE WOOD AND NUSHAGAK RIVERS. IT LIES 327 MILES FROM ANCHORAGE. THE REGION HAS THREE MAJOR MOUNTAIN RANGES: THE KILBUCK MOUNTAINS TO THE NORTHWEST, THE TALYOR MOUNTAINS TO THE NORTH, AND THE ALEUTIAN RANGE TO THE EAST. THE CLIMATE IS MARITIME, AND USUALLY COOL, HUMID, AND WINDY.

DILLINGHAM IS THE ECONOMIC, TRANSPORTATION, AND PUBLIC SERVICE CENTER FOR WESTERN BRISTOL BAY. DILLINGHAM RELIES HEAVILY ON THE COMMERCIAL FISHING INDUSTRY.

THE COMMUNITY IS EVENLY MIXED WITH NATIVE AND NON-NATIVE RESIDENTS, WITH AN APPROXIMATE POPULATION OF 2,466 PEOPLE. THE DEPARTMENT OF COMMUNITY AND ECONOMIC DEVELOPMENT RECORDS INDICATE A 18.2% POPULATION GROWTH RATE FROM 1990 TO 2000.

THE EXISTING AIRPORT RUNWAY IS APPROXIMATELY 6,404 FEET LONG AND 150 FEET WIDE, AND IS ORIENTED IN A NORTHEAST-SOUTHWEST DIRECTION. PROBLEMS IDENTIFIED WITH THE EXISTING AIRPORT ARE:

- 1) RUNWAY AND SAFETY AREAS ARE DEFICIENT IN LENGTH AND WIDTH;
- 2) THERE IS NO PARALLEL TAXIWAY, PLANES MUST TAXI ON THE RUNWAY;
- 3) LINE-OF-SIGHT ALONG RUNWAY DOES NOT MEET FAA REQUIREMENTS;
- 4) TREES AND OTHER OBJECTS ACT AS OBSTRUCTIONS TO AIR NAVIGATION;
- 5) WIND COVERAGE FOR SMALL PLANES DOES NOT MEET FAA RECOMMENDATIONS;
- 6) THERE IS LIMITED AIRCRAFT PARKING AND ENCLOSED PARKING FACILITIES;
- 7) VEHICLE PARKING FOR PASSENGER AND VISITOR VEHICLES IS INSUFFICIENT;
- 8) INSUFFICIENT FENCING AROUND THE AIRFIELD;
- 9) INADEQUATE TERMINAL BUILDING.

AS OF 2002, ALASKA AIRLINES, PENAIR, GRANT AVIATION, FRONTIER AVIATION, HAGELAND AVIATION, LARRY'S FLYING SERVICE, NORTHERN AIR CARGO, AIR CARGO EXPRESS, LYNDEN AIR CARGO, AND ALASKA CENTRAL EXPRESS HAD EITHER DAILY SCHEDULED FLIGHTS OR CHARTER SERVICES TO DILLINGHAM.

AIRPORT USAGE AND FORECASTS

THE ALASKA AVIATION SYSTEM PLAN (AASP) CLASSIFIES DILLINGHAM AIRPORT AS A REGIONAL CENTER AIRPORT. A REGIONAL CENTER AIRPORT IS DEFINED AS THE PRIMARY INTRASTATE ACCESS POINT TO A REGION WITH A POPULATION OF OVER 1,000 AND SERVES AS A SIGNIFICANT TRANSFER OR TRANSHIPMENT POINT TO THE REST OF THE REGION. DILLINGHAM IS PROJECTED TO REMAIN A REGIONAL CENTER AIRPORT IN THE FUTURE.

DILLINGHAM AIRPORT IS THE TRANSHIPMENT HUB FOR PASSENGERS AND CARGO BETWEEN ANCHORAGE AND COMMUNITIES IN THE REGION. TERMINAL AREA FORECASTS ESTIMATED 64,200 OPERATIONS FOR THE YEAR 2000, INCLUDING 59,542 OPERATIONS BY GENERAL AVIATION AIRCRAFT.

THERE ARE 100 BASED AIRCRAFT AT DILLINGHAM. THE FLEET MIX FOR BASED AIRCRAFT IS PROJECTED TO REMAIN 95 PERCENT SINGLE-ENGINE AND 5 PERCENT MULTI-ENGINE. THE CRITICAL AIRCRAFT FOR THE DILLINGHAM AIRPORT IS THE BOEING 737-200 COMBI (C-II). AS WELL AS THE BOEING 737-200C, THE AIRPORT CURRENTLY SERVES THE SAAB 340, FAIRCHILD METROLINER, TURBOPROP BEECH 1900, NAVAJO CHIEFTAIN, CESSNA 208 CARAVAN, AND PIPER SARATOGA AIRCRAFT.

TABLE 1 - OPERATIONS SUMMARY AND FORECAST

AIRCRAFT OPERATIONS FORECAST				
OPERATIONS FORECAST AT 0.8% ANNUAL GROWTH				
OPERATION TYPE	2000	2005	2010	2020
LOCAL	9,603	9,963	10,420	11,117
AIR TAXI	2,528	3,414	3,686	3,958
ITINERANT	52,069	54,217	58,665	60,332
TOTAL	64,200	67,594	70,771	75,407
ENPLANEMENT DATA				
FUTURE ENPLANEMENTS @2.4% GROWTH*	40,647	48,073	53,737	65,065
CRITICAL AIRCRAFT				
AIRCRAFT	APRCH SPEED (KNOTS)	WING SPAN (FEET)	GROSS WEIGHT (LBS)	ARC
BOEING 737-200C	137	93.0	115,500	C-III

DESIGN RATIONALE

THE PRIMARY OBJECTIVE OF THIS AIRPORT DEVELOPMENT IS TO REHABILITATE THE EXISTING SUB-STANDARD AIRPORT TO MEET CURRENT FAA STANDARDS. THE AIRPORT DEVELOPMENT WILL MEET THE FORECASTED FUTURE NEEDS OF THE VILLAGE OF DILLINGHAM AND INCREASE THE SAFETY OF OPERATIONS AT THE AIRPORT.

AIRPORT REFERENCE CODE

THE EXISTING AIRPORT IS A SUB-STANDARD C-III FACILITY THAT SHOULD BE UPGRADED TO MEET FAA DESIGN CATEGORY STANDARDS.

PROPOSED DEVELOPMENTS

THIS ALP CONTAINS NO NEW DEVELOPMENTS. AN UPDATED ALP IS TO BE COMPLETED ONCE THE MASTERPLAN (AIP# ?) IS FINALIZED.

PROPERTY STATUS

PROPERTY PLAN. IT WAS DETERMINED THAT AN UPDATED PROPERTY PLAN WAS NOT NEEDED FOR THIS INTERIM ALP.

MODIFICATIONS TO STANDARDS

OBSTRUCTIONS AND ENCROACHMENTS INTO F.A.R. PART 77 SURFACES

THERE ARE A NUMBER OF OBSTRUCTIONS PENETRATING THE FAR PART 77 IMAGINARY SURFACES. GROUND, GRAVE MARKERS, AND TREES WITHIN THE CEMETARY EAST OF THE RUNWAY PENETRATE THE PRIMARY SURFACE. THE PERIMETER FENCE AND EAST DILLINGHAM ROAD PENETRATE THE PRIMARY SURFACE AT THE NORTH END. AT THE SOUTH END THE LOCALIZER AND DME (DISTANCE MEASURING EQUIPMENT) PENETRATE THE PRIMARY SURFACE. TREES AND TERRAIN PENETRATE THE RUNWAY 19 APPROACH SURFACE.

WIND COVERAGE

FOR SMALL AIRCRAFT, THE EXISTING RUNWAY PROVIDES LESS THAN 95 PERCENT WIND COVERAGE, WHICH IS THE FAA'S RECOMMENDED MINIMUM WIND COVERAGE.

RUNWAY LINE-OF-SIGHT

IN THE YEARS SINCE IT WAS BUILT, THE NORTH END OF THE RUNWAY HAS BEEN SINKING, SO THERE IS NOW A PROBLEM WITH LINE-OF-SIGHT ALONG THE RUNWAY. IT DOES NOT MEET THE FAA REQUIREMENT FOR VISIBILITY, FROM END TO END, AT 5 FEET ABOVE THE RUNWAY SURFACE.

TABLE 2 - AIRPORT DESIGN STANDARDS

DILLINGHAM AIRPORT DESIGN STANDARDS	
ITEM	RUNWAY 1/19
	EXISTING
RUNWAY DIMENSION	150' x 6,404'
RUNWAY SAFETY AREA DIMENSION	200' x 6,893'
RUNWAY OBJECT FREE AREA DIMENSION	300' x 7,604'
RUNWAY OBSTACLE FREE ZONE DIMENSION	300' x 6,804'
TAXIWAY DIMENSION	50' x 515'
TAXIWAY SAFETY AREA DIMENSION	118' x 515'
TAXIWAY OFA DIMENSIONS	186' x 515'
APRON SETBACK DIST (FROM RUNWAY CENTERLINE)	515'
PARKING APRON	470' x 1,680'
APPROACH SLOPE	34:1
RUNWAY PROTECTION ZONE DIMENSIONS	
INNER WIDTH	500'
OUTER WIDTH	1010'
LENGTH	1700'

AIRPORT LAYOUT PLAN CONDITIONAL APPROVAL SUBJECT TO AIP APPROVAL LETTER DATED 6/24/03

By: [Signature] DATE: 6/30/03
FAA, AIRPORTS DIVISION
ALASKAN REGION, AAL-800

F.A.A. AIRSPACE REVIEW NUMBER: 08-AAL-300RA

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
CENTRAL REGION

APPROVED: [Signature] DESIGN SECTION CHIEF
STEPHEN M. RYAN, P.E.
APPROVED: [Signature] PROJECT MANAGER
HARVEY M. DOUTHITT, P.E.

DATE 4/24/03
DESIGN JLO
DRAWN JLO
CHECKED SRP

DILLINGHAM AIRPORT
INTERIM AIRPORT LAYOUT PLAN
NARRATIVE REPORT